Cryptix DEX Whitepaper

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Summary

Cryptix DEX is a decentralized trading platform for the cryptocurrency CPAY, enabling users to buy and sell CPAY directly without the platform holding their funds. This whitepaper describes how the platform works for sellers and buyers, how transactions are securely executed, and which protective mechanisms are used to ensure trust and security. Cryptix DEX acts as a mediator, coordinating buyers and sellers, and utilizes advanced security mechanisms to safeguard funds.

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1. Introduction

1.1 What is Cryptix DEX?

Cryptix DEX is a platform that connects buyers and sellers of CPAY. Unlike traditional exchanges, Cryptix DEX **holds neither cryptocurrencies nor fiat funds**. Instead, the platform uses **multisignature wallets** to ensure that transactions can only be completed with the consent of the involved parties. Users retain full control over their funds while the platform coordinates the transaction process.

1.2 Objectives

- **Secure Trading:** Users retain control of their funds through multisignature wallets.
- **Transparency:** All transactions are verifiable and secure.
- **Flexibility:** Support for various payment methods, including fiat (e.g., PayPal, bank transfer).
- **Low Costs:** A small fee (~$0.50 in CPAY) for buyers and (~$0.25 in CPAY) for sellers to prevent abuse.
- **Global Availability:** Available worldwide, as long as local laws are followed.

1.3 Who is Cryptix DEX For?

- Individuals looking to buy or sell CPAY.
- Users seeking a secure, decentralized trading platform.
- Users who prefer flexible payment methods.

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2. How Cryptix DEX Works

Cryptix DEX facilitates trading through a clearly defined process that ensures both buyers and sellers are protected. The following describes the process from the user's perspective.

2.1 Preparation: Setting up a Wallet

Each user must first create a free **CryptixID account** on the Cryptix Member Area: https://cryptix-network.org/member-area During registration, a wallet address is automatically generated and linked to the account.

- For buyers, CPAY will be sent automatically to this address.
- For sellers, this address is used to return funds in case of offer cancellation.

To register for a CryptixID, a valid wallet address is required. Users can create one for free using any wallet option, such as the Cryptix Web Wallet: https://wallet.cryptix-network.org/

The local wallet used for signing DEX transactions is generated automatically by the **DEX Daemon** running on the user's computer. Therefore, the DEX Daemon must be started whenever the DEX is used.

The DexDaemon only needs to be started by double-clicking it; nothing else needs to be done. Everything is automated and runs via the website's DEX frontend. The DEX daemon will serve a wallet daemon, which will automatically connect a public node, meaning users don't need a Cryptix node. However, they can also connect a local node for even greater security.

2.2 Step-by-Step Process

2.2.1 Creating Offers (Sellers)

Defining an Offer

Define Offer:

- The seller specifies the **amount of CPAY** they wish to sell, the **price** (e.g., in USD), and the preferred **payment method** (e.g., bank transfer, PayPal, Bitcoin).
- The seller also provides the necessary **payment details**, such as a bank account number or Bitcoin address.

Locking CPAY:

- The platform creates a **2-of-2 multisig wallet**, with the **seller** and the **platform** as signers/public keys. The creation of a private and local signing wallet is performed automatically by the User Dex Daemon.
- The seller sends the specified amount of CPAY to this wallet.
- The platform automatically verifies the payment. **Only after the CPAY is received** does the offer become visible to buyers. Buyers can check the wallet address to see if the offer is actually covered and the full coins are actually located on the 2-of-2 multisig wallet address.
- Creating an offer carries a **$0.25 CPAY fee** for the seller. This means the seller sends the **total number of coins to sell + $0.25 CPAY** in a single transaction to the DEX.
- This fee is used for subsequent transactions during the sale process. Any **remaining coins are "burned"**, as they are no longer transferable after the sale. Consequently, **every sale results in the burning of CPAY coins**.

Offer Visibility:

- The offer appears in the list of available offers that buyers can browse **only after the coins and fee have been received** in the 2-of-2 multisig wallet.
- Once the coins are in the wallet, **neither the DEX nor the seller can move them**.

Canceling an Offer:

- Sellers can cancel their placed coins using the **"Cancel" button**.
- If a buyer is currently registering, **a 15-minute waiting period** applies. Clicking "Cancel" immediately removes the offer from the list.
- If no buyer registers within 15 minutes, the seller can return their coins to their wallet using a **"Claim" button**. If a buyer completes the registration process for the offer during this time, the cancellation will be rejected. Because the buyer had already pressed the buy button before the seller pressed the cancel button.
- The **$0.25 CPAY fee is non-refundable**.
- When the cancel or claim action is executed, a transaction is signed by **both the seller and the DEX** and sent to the wallet address stored in the CryptixAccount.

2.2.2 Finding and Registering for Offers (Buyers)

Browsing Offers:

- Buyers can view a list of all available offers, which can be filtered by **coin type** (e.g., CPAY) or **payment method**.
- Each offer displays the **amount**, **price**, and **payment method** (e.g., PayPal, Bitcoin).

Registering for an Offer:

- To register, a buyer selects an offer and provides their **name and public key**. The information is automatically transferred via **WalletDaemon** and the member area. Click the **"Buy" button** to begin the registration process.

- Before the buyer is officially registered, a **$0.50 CPAY fee** must be paid. This fee goes to the DEX and serves as **spam and abuse protection**. A **unique wallet address** is generated for this payment, and registration is completed only after the payment is received.
- Buyers have **10 minutes** to pay the fee. During this period, the offer is **reserved exclusively** for them. The DEX automatically monitors the payment and provides **real-time notifications**. Payment is simple, with both the wallet address and **QR code** displayed.
- If the fee is **not paid within 10 minutes**, the buyer is **permanently rejected** for this offer, and the listing becomes available to other buyers.
- **Note:** Only **one buyer per offer** is allowed, and each buyer can register for a maximum of **5 open offers** simultaneously to prevent abuse.

Waiting for Seller Approval:

- After registration, the seller decides which buyer to accept. By clicking the **"Accept" button**, the coins are moved to a **2-of-3 multi-signature wallet** consisting of the following public keys:
  - Seller's public key
  - Buyer's public key
  - DEX's public key
- From this point, the coins can only be moved with **2 out of 3 signatures**, meaning either:
  - Buyer + Seller
  - DEX + Buyer
  - DEX + Seller

2.2.3 Buyer Acceptance and Payment

CPAY Transfer:

- Once the seller accepts a buyer, the CPAY coins are **moved from the 2-of-2 wallet to a 2-of-3 multisig wallet**, managed by the **seller, buyer, and DEX**.
- The platform automatically verifies that the transfer has been completed successfully.
- Only now does the buyer receive an "accepted" status, allowing them to view the payment details. Previously, they could only see the payment method, not the details. They must complete the payment and mark it as paid by clicking a button.

External Payment:

- The buyer then sends the payment **directly to the seller** using the provided payment details (e.g., bank transfer, PayPal, Bitcoin).
- The Cryptix DEX is **not involved in the external payment** and assumes no responsibility for it.

2.2.4 Completing the Transaction

Payment Confirmation:

- The buyer must now manually check whether he has received the payment; if so, he marks the transaction as paid.
- Once the seller has received the payment, both parties (seller and buyer) sign the transaction to release the CPAY from the 2-of-3 wallet.
- The platform coordinates this process and ensures the signatures are valid.

CPAY Release:

- After successful signing, the CPAY are sent to the buyer's wallet from the CryptixID Account.
- The transaction is marked as completed.

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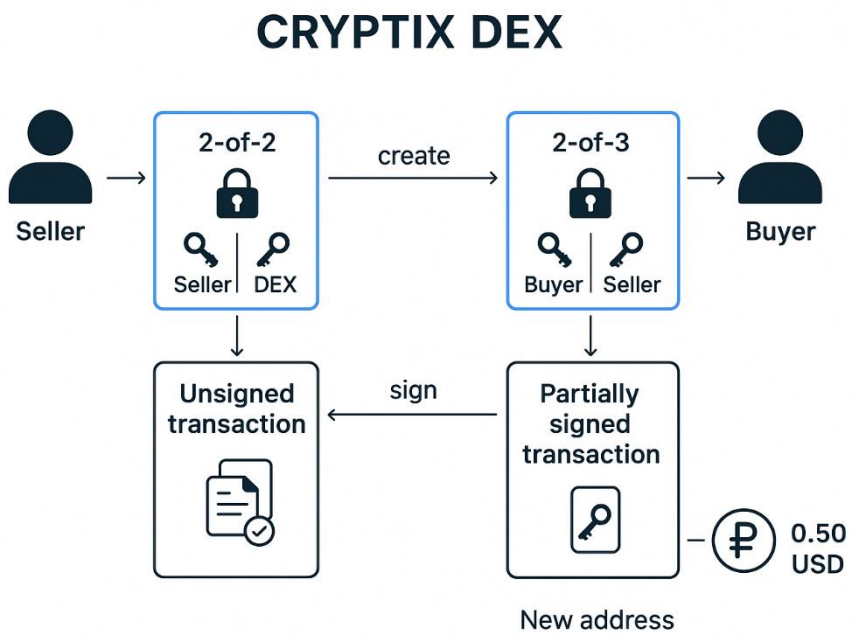
3. Security Mechanisms



Cryptix DEX places great importance on user security. The following mechanisms protect buyers and sellers:

3.1 Multisignature Wallets

- **2-of-2 Wallet (Seller + Platform):** Prevents CPAY from being moved without both parties' consent.
- **2-of-3 Wallet (Seller + Buyer + Platform):** Ensures that transactions are only completed with at least two signatures, providing protection if one party does not cooperate.
- The platform has **no access to private keys** and cannot move funds independently.

3.2 Abuse Protection

- Limit on buyer registrations: a buyer can only register for up to 5 open offers.
- Automatic suspension for misuse: users repeatedly creating invalid offers or violating rules are temporarily blocked (e.g., 3 hours after 5 violations).
- Time limits: payments must be confirmed within 10 minutes to avoid delays.

3.3 Transparency

- All transactions are verifiable on the blockchain.
- Users can always see the status of their offers, e.g., whether CPAY has arrived or a payment is pending.

3.4 External Payments

- Payments outside of CPAY (e.g., fiat or other cryptocurrencies) occur directly between buyer and seller.
- Cryptix DEX assumes no liability for external payments, making user responsibility clear.

3.5 Anti Fraud

In case of a dispute, for example if a buyer claims to have paid but the seller disagrees, Cryptix DEX acts as the third party in the 2-of-3 multisig wallet. The DEX reviews the payment proof (e.g., btc transactions or PayPal receipt) and casts its vote accordingly. Since at least two of the three signatures are required to release the CPAY coins, the DEX can ensure that funds are only transferred when the transaction is verified, preventing unauthorized or fraudulent releases while maintaining a fair and secure trading process.

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4. User Responsibilities

4.1 Compliance with Local Laws

- Users are responsible for following all local laws and tax regulations.
- Cryptix DEX does not verify transaction legality and is not liable for violations.

4.2 Risks of External Payments

- Payments such as bank transfers or PayPal are the responsibility of the users.
- The platform only releases CPAY if the transaction is properly signed, regardless of external payment.
- By clicking on "Receive Payment," the coins are transferred to the buyer. The platform has no way to verify external payments, so the seller must do this themselves.

4.3 Wallet Security

- Users must securely store their private keys.
- Lost keys **cannot** be recovered by the platform.

- The private keys for the Dexdaemon are stored locally in the Dexdaemon folder. If these files are deleted by the user, they will no longer have access to the coins.

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5. Benefits of Cryptix DEX

- **Security:** Multisignature wallets and non-custody minimize risk.
- **Flexibility:** Supports multiple payment methods, including fiat.
- **Transparency:** All transactions are verifiable and status is visible to users.
- **Low Costs:** The ~$0.50 fee or 0.25$ is minimal and only serves to prevent misuse.
- **Global Availability:** The platform is accessible worldwide, as long as local laws are observed.

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6. Changes and Updates

Cryptix DEX reserves the right to change the terms of use or platform features. Changes will be shown to users before release. Continued use of the platform constitutes acceptance of the changes.

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7. Conclusion

Cryptix DEX provides a secure, user-friendly, and decentralized solution for trading CPAY. By using multisignature wallets and a clear separation of responsibilities, the platform ensures users **retain control over their funds**, while coordinating the transaction process as a mediator. Support for flexible payment methods and low fees make Cryptix DEX an attractive choice for crypto users worldwide.

Disclaimer: Cryptix DEX is not responsible for losses due to fraud, errors, or external payments. Users trade at their own risk and must comply with local laws. Crypto trading transactions may be subject to taxes; users are responsible for checking the regulations in their own country.

Cryptix DEX — User Interface

DEX Console

```
kpub2J5NmMptWA3wawB5GYsFg9TT1cHp1EQXWd5ZJp8SMvSxCgXguGaJx5YPCS55vUhn1FyDgCzfEZuUnBC4jwLYc1LoLsCcsrbThiNVrA2TiW
B
[14.10.2025, 22:16:20] Sending offer to DEX...
[14.10.2025, 22:16:21] Preparing DEX Daemon and waiting for priority slot 1...
[14.10.2025, 22:16:21] Waiting... 3 seconds
[14.10.2025, 22:16:22] Waiting... 2 seconds
[14.10.2025, 22:16:23] Waiting... 1 seconds
[14.10.2025, 22:16:25] DEX Daemon ready, priority slot 1 acquired
[14.10.2025, 22:16:28] Offer successfully sent to DEX
[14.10.2025, 22:16:28] DEX: Create 2-of-2 Wallet...
[14.10.2025, 22:16:29] 2-of-2 PubKey:
kpub2HytxXb4PtMuSnp3Y7Sqr7ck8aXJSPupAegEzvZv77VhEmyM2ikSY6WwSDjxeCoXAr7pfRATgmJUHKT1vW7uLdzzxdtAweGXDiwzFYNBH5
9
[14.10.2025, 22:16:29] DEX: Start Daemon & Generate Address...
[14.10.2025, 22:16:29] 2-of-2 Address: cryptix:pp07q3909ujt2sr370wtm66gjqg406pfacem4h0yjqk5egfqz9tn2a0sdukvf
[14.10.2025, 22:16:29] Offer creation finished...
[14.10.2025, 22:16:30] [SUCCESS] Offer Created! TX: TX1760472985777O
```

Clear Console | Get Public Key | Sign Message | Create Offer

CEX PRICE:

DEX PRICE:

Coins: CPAY

Available Offers

Refresh

Sell Orders

Date	Seller UserID	TX	Amount	$ Price	$ Price per Coin	2-of-2 Address	Payment Method	Action
10/15/2025, 02:38 PM	user123	TX17605390791089	18419.1176	5.01	0.000272	cryptix:pq...qjh53 Coins arrived? Check	Bitcoin (BTC)	Buy
10/15/2025, 03:48 PM	user456 (your offer)	TX17605433125588	18419.1176	5.01	0.000272	cryptix:pr...7yy68 Coins arrived? Check	Bitcoin (BTC)	
10/15/2025, 02:36 AM	user123	TX17604958072775	20702.4793	5.01	0.000242	cryptix:pq...pve3r Coins arrived? Check	Bitcoin (BTC)	Buy

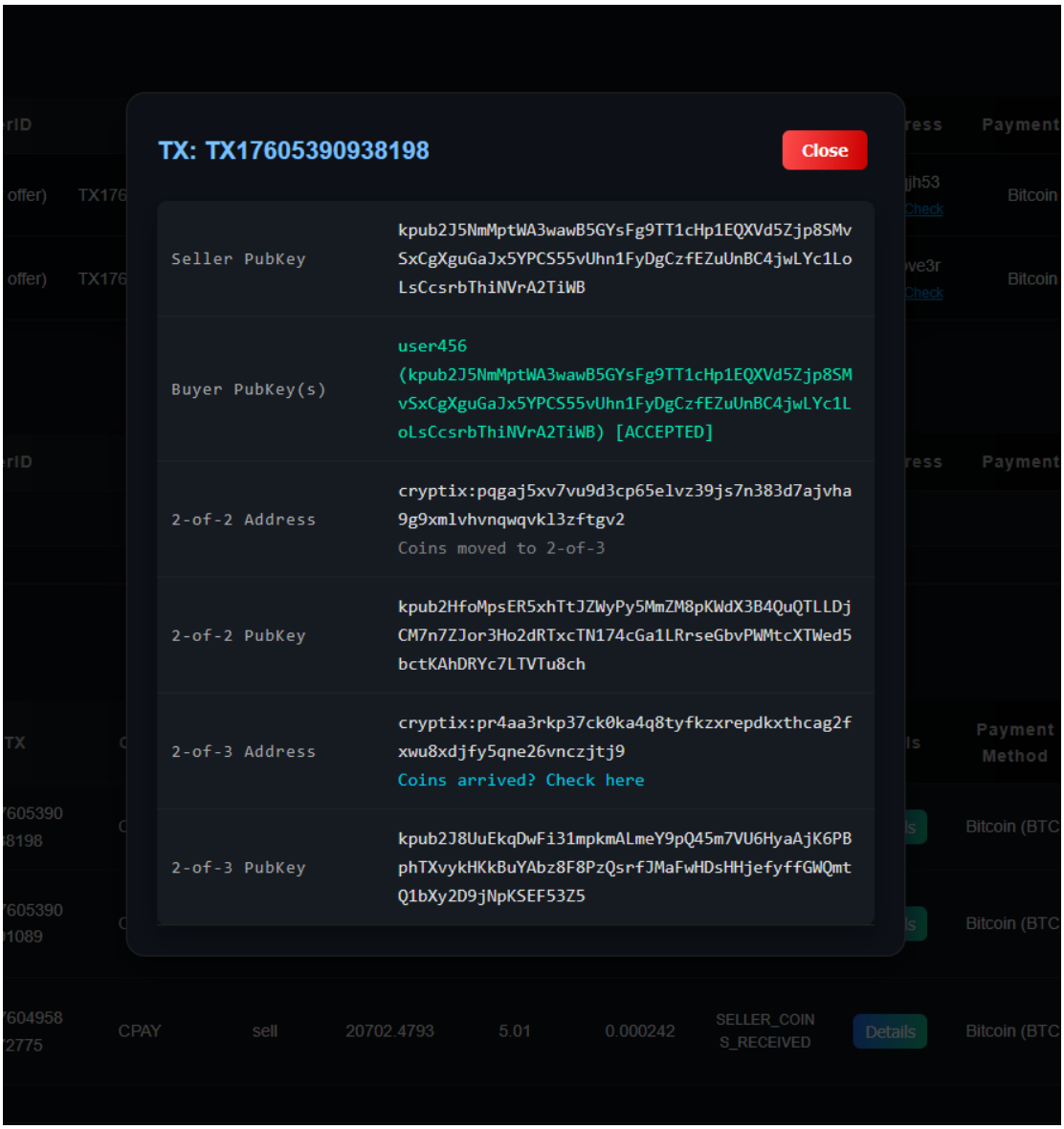
Buy Orders

Date	Buyer UserID	TX	Amount	$ Price	$ Price per Coin	2-of-2 Address	Payment Method	Action
No buy orders available for CPAY. Function not active.								

My Offers

Refresh

Date	Seller UserID	TX	Coin	Type	Amount	$ Price	$ Price per Coin	Status	Details	Payment Method	Payment Details	Action
10/15/2025, 03:48 PM	user456	TX17605433125588	CPAY	sell	18419.1176	5.01	0.000272	SELLER_COINS_RECEIVED	Details	Bitcoin (BTC)	Wallet: 222223	Wait for buyer. Cancel
10/15/2025, 02:38 PM	user123	TX17605390938198	CPAY	sell	18419.1176	5.01	0.000272	2OF3_RECEIVED	Details	Bitcoin (BTC)	Wallet: 222223	Perform the payment. Perform Payment


TX: TX17605390938198
Close
Seller PubKey
kpub2J5NmMptWA3wawB5GYsFg9TT1cHp1EQXVd5Zjp8SMvSxCgXguGaJx5YPCS55vUhn1FyDgCzfEZuUnBC4jwLYc1LoLsCcsrbThiNVrA2TiWB
Buyer PubKey(s)
user456 (kpub2J5NmMptWA3wawB5GYsFg9TT1cHp1EQXVd5Zjp8SMvSxCgXguGaJx5YPCS55vUhn1FyDgCzfEZuUnBC4jwLYc1LoLsCcsrbThiNVrA2TiWB) [ACCEPTED]
2-of-2 Address
cryptix:pqgaj5xv7vu9d3cp65elvz39js7n383d7ajvha9g9xmlvhvnqwqvkl3zftgv2
Coins moved to 2-of-3
2-of-2 PubKey
kpub2HfoMpsER5xhTtJZWyPy5MmZM8pKWdX3B4QuQTLLDjCM7n7ZJor3Ho2dRTxcTN174cGa1LRrseGbvPWMtcXTWed5bctKAhDRYc7LTVTu8ch
2-of-3 Address
cryptix:pr4aa3rkp37ck0ka4q8tyfkzxrepdkxthcag2fxwu8xdjfy5qne26vnczjtj9
Coins arrived? Check here
2-of-3 PubKey
kpub2J8UuEkqDwFi31mpkmALmeY9pQ45m7VU6HyaAjK6PBphTXvykHKkBuYAbz8F8PzQsrfJMaFwHDsHHjefyffGWQmtQ1bXy2D9jNpKSEF53Z5